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| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/787,194   | 02/27/2004  | Junya Shirahata      | 118831              | 4580             |
| 25944 7590 10/02/2008<br>OLIFF & BERRIDGE, PLC<br>P.O. BOX 320850<br>ALEXANDRIA, VA 22320-4850 |             |                      |                     |                  |
| EXAMINER   |             |                      |                     |                  |
| NGUYEN, CAM N  |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 1793   |             |                      |                     |                  |
| MAIL DATE  |             | DELIVERY MODE        |                     |                  |
| 10/02/2008   |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/787,194

**Applicant(s)**

SHIRAHATA, JUNYA

**Examiner**

Cam N. Nguyen

**Art Unit**

1793

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 07/17/08 (an RCE and amendment/response).
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on originally filed is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

**Status of Continued Examination Application (RCE)**

1. A request for continued examination (RCE) under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after the final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicants' submission filed on 07/17/08 has been entered.

**Response to Amendment**

2. The amendment filed on 07/17/08 has been made of record and entered. Claims 1-3 have been amended.

Claims 1-4 are currently pending in this application.

**Claim Rejections - 35 USC § 112 (Second Paragraph)**

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 3 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitation on “in a range of 80 to 90% by weight or more” in line 3 appears to be improper because it does not particularly point out a definite range or the lower range being required. Thus, renders the claim vague and indefinite.

**Claim Rejections - 35 USC § 102(e)**

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-4 are rejected under 35 U.S.C. 102(e) as being anticipated by Reisinger et al., “hereinafter Reisinger”, (PG Pub. No. US 2004/0028589).

Reisinger discloses a catalyst containing a layer on an inert carrier body comprising noble metals from the platinum group deposited on support materials, wherein the layer comprises platinum deposited on compounds selected from the group consisting of metal oxides including mixed oxide of zirconia/ceria (see page 5, claim 1). The support further comprises ceria/zirconia mixed oxide, which is stabilized with praseodymia, yttria, neodymia, lanthana or mixtures thereof (see page 5, claims 4 & 5). The zirconia/ceria (or zirconia-rich) contains at least more than 50% by weight of zirconia, and the balance is the stabilizer, such as lanthana, yttria, etc. (see page 2, paragraph [0018]). The support also contains ceria/zirconia (or ceria-rich) with ceria being contained in the amount of from 60 to 90 wt.% relative to the weight of the mixed oxide,

and the stabilizer can be contained in this mixed oxide in the amount of from 0.5 to 10 wt.% relative to the total weight of the stabilized material (see page 2, paragraph [0019]).

The limitation on “a loading layer formed on the catalyst support substrate, and comprising cerium oxide and zirconium oxide in a summed amount of 80% by weight or more with respect to the entire loading layer taken as 100% by weight” is noted.

It would appear that Resinger reference discloses the same catalyst, and the catalyst contains a catalyst layer, which contains the same metal oxide (cerium oxide and zirconium oxide) and at least one additive member (or stabilizer) with additive being contained in the disclosed mixed oxide of cerium and zirconium oxide in the amount of from 0.5 to 10 wt.%, which provides for the mixed metal oxide of cerium and zirconium oxide contained in the catalyst layer being in the amount of 90 to 95 wt.%, which meets the claimed limitation.

The claimed catalyst does not appear to distinguish from the disclosed catalyst. Thus, the claims are anticipated by the teaching of the reference.

#### **Response to Applicants' Arguments**

4. The remarks filed on 07/17/08 have been fully reconsidered, but not deemed persuasive for the same reasons as set forth in the last office action and the following reasons.

Applicants basically made the same arguments as in the previous response regarding the limitation on “a loading layer comprising cerium oxide and zirconium oxide in a summed amount of 80% by weight or more with respect to the entire loading layer taken as 100% by weight”. As indicated above that upon carefully reviewed the Resinger (PG Pub. No. US 2004/0028589) reference and it would appear that Resinger reference discloses the same catalyst,

and the catalyst contains a catalyst layer which contains the same metal oxide (cerium oxide and zirconium oxide) and at least one additive member (or stabilizer) with additive being contained in the disclosed mixed oxide of cerium and zirconium oxide in the amount of from 0.5 to 10 wt.%, which can be interpreted that the mixed metal oxide of cerium and zirconium oxide contained in the catalyst layer is in the amount of 90 to 95 wt.% , which meets the claimed requirement.

**Conclusion**

5. Claims 1-4 are pending. Claims 1-4 are rejected. No claims are allowed.

**Contacts**

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cam N Nguyen, whose telephone number is 571-272-1357. The examiner can normally be reached on M-F, 9:00 AM - 6:30 PM, at alternative work site.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stanley Silverman, can be reached on 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 571-272-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Cam N. Nguyen/

Nguyen/cnn

Primary Examiner

September 29, 2008

Art Unit: 1793